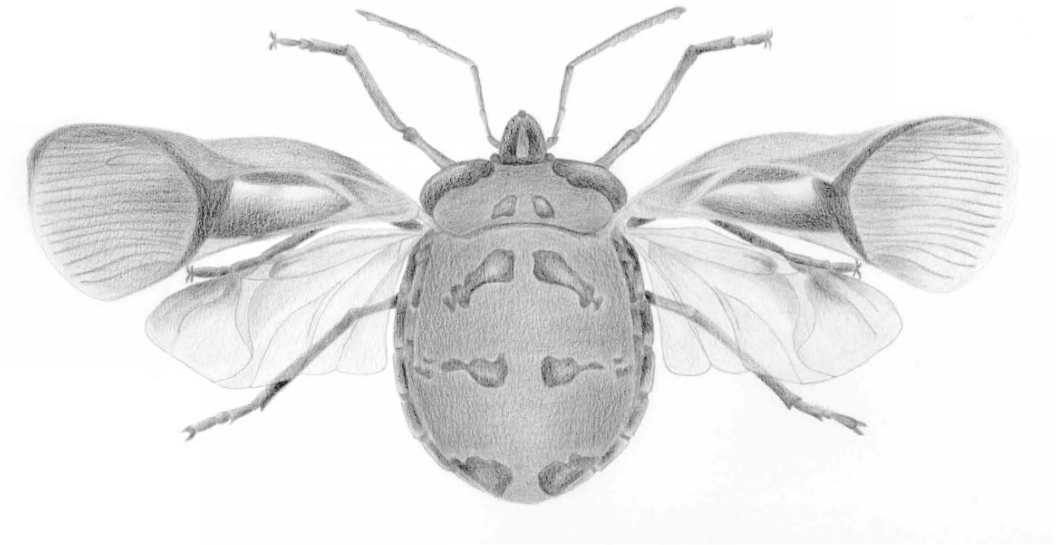
MYRMECIA

News Bulletin of the Australian Entomological Society Inc.
Volume 42, Part 4, November 2006
Australia Post Print Post Publication PP242296/00144.
Price $5.50 (including GST) ISSN 1323-6032



Front cover: Image by Loren Strong, Newcastle University of *Tectocoris diophthalmus*, the cotton harlequin bug, that won first place in the Student Colour section of the AES Illustration competition in 2005.

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MYRMECIA

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NOTICE

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EDITORIAL

Unfortunately I was unable to make the annual conference in Adelaide this year but by all reports, verbal and visual, it sounded like a cracker! With the AGM being held we see a host of people holding positions pass on the baton. I am sure I speak for all members when I say thanks to all who have sacrificed their time for the good of the society and its members, and welcome to those who have taken up a position. This issue is the biggest I have put together so far and a hearty thanks to those who have contributed. I considered publishing the winning black and white and colour illustrations but it wouldn't do them justice. They are available on the AES website in all their beauty. This issue has all the annual reports plus the usual range of goodies. I have a book available for review (see the book review section for more details) so please contact me if you are interested in reviewing this for Myrmecia. As per usual, the reviewer gets to keep the book. I hope everyone manages to finish off 2006 with a bang and has a great Xmas/New Year break. See you all in February 2007!

Aaron SIMMONS

TREASURER'S REPORT

The change to the Society Constitution

which lines up the membership year with the financial year was approved at the Annual General Meeting in Adelaide.

During discussion about the proposed change, there were good reasons put forward as to why the years were six months out of phase, the most compelling one was that the calendar membership year was the same as for the Journal volumes. This in turn is linked to the Society's arrangement with Blackwell Publishing. Processing of Journal subscriptions has become more flexible, so this is now less of an issue. I am therefore confident that the constitutional change will have benefits across the board once the new system is bedded down.

The first practical indication of the change for members will be in the subscription notices sent out in December. They will cover the period January to June 2007 only. Separate notices will then be issued in June for the full financial year, 2007/08.

Your Society's healthy financial result for 2005/06 reported at the AGM meant that there was no justification for increasing fees for the next subscription period. However, the current financial year (2006/07) is expected to be free from the abnormal items of the two previous years so that it will be a much better guide to the Society's longer term financial situation.

Graham THWAITE (Treasurer)

REPORT FROM THE ADELAIDE CONFERENCE ORGANISING COMMITTEE

South Australian Research and Development Institute and The University of Adelaide hosted the joint Australian and New Zealand Entomological Societies Conference held in Adelaide September 24-27, 2006. The conference theme was "Biosecurity – Caring for our Environment and Agriculture". Biosecurity is probably more important to Australia and New Zealand than any other developed country because of our relative isolation, unique ecosystems and reliance on agriculture. Insects play important and complex roles within Biosecurity systems and can be classified as heroes, villains and victims.

Australia and New Zealand are relatively free from many destructive pests and the prevention of new pest entering our shores is considered of great consequence. Freedom from pests provides a valuable competitive advantage where quarantine barriers are becoming an increasingly important constraint to food exporters. As such our governments are concerned with providing appropriate preparedness and response capacity to meet National and International trade obligations. Equally, our unique ecosystems are vulnerable to incursions where no natural predators exist. Entomologists will provide important contributions to understanding these risks, and addressing biosecurity objectives.

The conference delegates were welcomed by SARDI Director of Science, Dr Pauline Mooney. She observed that there are continuing crop losses globally from insect pests and disease despite our best control efforts. The shrinking base of entomological expertise and the implications for Australia's biosecurity was also seriously acknowledged. In closing, Pauline left delegates with a challenge to conduct research that will make a real difference to lessening our impact on the planet, particularly by chemicals, and improving

sustainability. Hopefully this conference contributed to this process.

Dr Peter Taverner smoothly guided the Organising Committee with members Gary Taylor, Katja Hogendoorn, Mike Keller, Remko Leijis, Gabriella Caon, Vanessa Cockington and Glenys Wood joined by John Early (NZ) and Murray Fletcher (NSW).

Insect Photographic and Illustration Competition Prize Winners

The Photographic and Illustration Competitions held in conjunction with the Joint AES and NZ Entomology Societies Conference again attracted a field of high quality entrants. The exhibition provided a focal point in the Conference Registration and Poster Venue and generated considerable discussion amongst the conference participants. The judging panel consisted of Remko Leijs and Gary Taylor (both on the Conference Organising Committee), and local Artist /Illustrator Kevin Stead (widely known for his work with Australian Geographic covers and calendars, and various Australia Post stamp series).
Even though judging was difficult, the panel arrived at a decision with a remarkable degree of consensus. The prizes in each category were as follows:

Photographic Competition

First Prize
Leigh Pilkington, NSW Department of Primary Industries, for the aggregation of coccinelid ladybird beetles taken at Los Padres State Forest, California

Second Prize
Herbert Heinrich, Technical Services Coordinator, School of Design, Communication and IT, University of Newcastle, for the larva of the Australian Birdwing Butterfly, *Ornithoptera priamus*.

Third Prize Christine Rockley University of Newcastle, for the pair of Cabbage White Butterflies, *Pieris rapae*.

Colour Illustration Competition
(All prize recipients for the Colour, and Black & White Illustration Competitions are students of the Bachelor of Natural History Illustration Program at the University of Newcastle)

First Prize
Melanie Evans, for the sphingid Hawk Moth, *Hyles livornicoides* (see illustration)

Second Prize
Jessica Peascod, for the black and gold caterpillar of the agaristid moth, *Agarista agricola*.

Third Prize
Christine Rockley, for the black and orange scarab beetle.

Black & White Illustration Competition

First Prize
Christopher Schofield, for the curculionid weevil, *Chrisolopus spectabilis* (see illustration).

Second Prize
Tullia Price, for the Yellow migrans Butterfly

Third Prize
Luke Davies, for the reduviid Assassin Bug.

First place prize-winners each received a

cheque of $100 from the Society, and Second prize-winners received $50 (a Third prize-winner in the Photographic Competition received $25). All three winners in each category received certificates. For his expert advice, Kevin was presented with a bottle of SARDI Red. This caused an unforseeable problem as he had ridden a bicycle in to the judging, and didn't have a back-pack. Not to be daunted, he was last seen pedalling through city peak-hour with the bottle of red in the bicycle's drink-holder.

Student Oral and Poster Awards

The Best Student Oral and Best Student Poster Awards were judged by a selection panel, expertly chaired by New Zealand Entomological Society's John Early (Auckland Museum). The panel deliberated over the excellent standard of eligible presenters, finally awarding the following:

Best Oral Presentation

Nicholas Stevens, PhD Candidate, University of Adelaide, for his presentation "The many lineages of an unnatural grouping: The evolution of the parasitoid wasp genus *Bassus* (Braconidae: Agathidinae), including a colourful mimicry complex, in Australasia."

Runners-up

Lynita Howie, MSc Candidate, Griffith University, for her presentation "Attraction of adult *Bactrocera tryoni* (Froggatt) (Diptera: Tephritidae) to bacteria in different growth phases."

Michael Nash, PhD Candidate, University of Melbourne, for his presentation "Conservation, carabids and crops."

Best Poster Presentation

Anna Burns, PhD Candidate, Charles Sturt University, for her poster "Assemblage composition and spatial turnover of arthropods associated with mistletoe in remnant woodlands."

All prize-winners received a 1-year gift membership to the Australian Entomological Society. First Prize in each of the two categories received a £50 gift voucher from Blackwell's. The kind sponsorship from Blackwell's is gratefully acknowledged.

MEMBER BIOGRAPHIES

Some of our new members (see Executive Report) supplied information to assist us to know them better.

Elected 11 May 2006

Ross Rickard graduated with an honours degree in Agricultural Science from The University of Sydney in 1999. His honours year (funded by a scholarship) was a taxonomic study of *Geoscapheus dilatatus*, the common soil burrowing cockroach. Since then Ross has been working at the Australian Quarantine and Inspection Service (AQIS) as an entomologist and is currently the senior entomologist for AQIS NSW. His daily activities include managing a small team of entomologists who are required to identify a broad range of taxa intercepted from imported and exported commodities. Other tasks include providing technical advice and training to quarantine officers.

Elected 13 July 2006

Annie Noack is a PhD student in the Faculty of Agriculture at The University of Sydney. Her research project is on the taxonomy and population dynamics of a thaumastocorid bug infesting eucalypts in the Sydney Basin. The project is being co-supervised by Harley Rose and Gerry Cassis (Australian Museum). Annie's other entomological interests include the microhymenoptera.

Elected 10 August 2006

Corrina Lange is with the School of Integrative Biology at The University of Queensland. She gained her Bachelor of Science in Australian Environmental Studies from Griffith University in Queensland and then spent time with the CRC for Tropical Pest Management as a research assistant and is co-author of an impressive number of papers. Corrina has chosen *Helicoverpa punctigera* as the subject of her PhD under the supervision of Myron Zalucki. Her entomological interests centre on Lepidoptera with an emphasis on population genetics and insect behaviour.

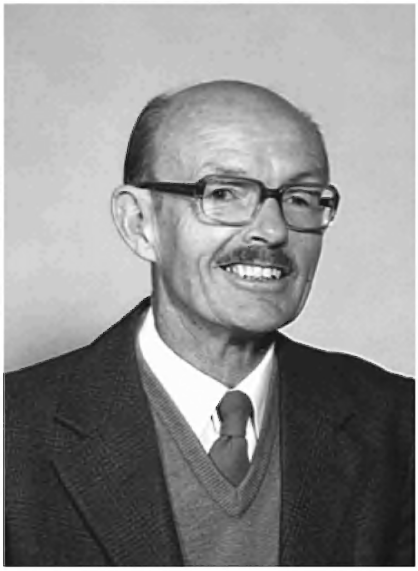
Gregory Murdoch obtained a BScAgr (Entomology) from The University of Sydney last year. He has undertaken insecticide screening studies in collaboration with Yates, seeking improved control of vegetable pests. Greg is now studying for a PhD in the Faculty of Agriculture under the guidance of Sarah Mansfield and Alan Clift. His project is investigating the biological control of *Orthorinus cylindrirostris*, a major pest of cultivated blueberries. Greg's interest in biological control using entomopathogens will no doubt assist him towards completing the project.

Sally Cowan recently took up the position of Entomology Technician with AQIS as part of the Northern Australia Quarantine Strategy (NAQS) based in Mareeba, Queensland. Prior to the big trip north she had worked for many years at the Australian Museum, Sydney, primarily in the Entomology section as a technician.

Sohail Qureshi is presently working on a PhD project titled "Pest management in small-scale tropical vegetable system with particular reference to whitefly, Bemisia tabaci, Biotype B control in cucurbits". It will be finished by mid 2007.

OBITUARIES

Ian Francis Bell Common (1917 – 2006)



Ian Common was an outstanding Australian entomologist who exerted a major influence on studies of Lepidoptera, not only in Australia but throughout the World. He was also a role-model for a generation of, mostly overseas, lepidopterists.

Ian's father, Francis Common, of Scottish descent migrated to Australia where he met and married Alice Pillinger in 1914. The couple returned to England to meet his parents and were caught up in World War I when Francis joined the Scottish Horse. Ian, and his elder sister Iris, were born at Alford, Lincolnshire, during the war. After the war Francis (and family) was posted to India to train troops and in about 1921 the family returned to Queensland. At first they ran a dairy farm near Pittsworth but soon moved to Toowoomba where Francis operated a real estate business.

Ian was brought up in Toowoomba and after a spell in his father's business he entered Toowoomba Grammar School and matriculated in 1937. He attended the University of Queensland graduating B.A. (first class honours in Philosophy) in 1941 and B. Agr. Sc. in 1945 (with honours in 1947). In 1941 he volunteered for military service but was rejected because of his feet.

In 1944 Ian was appointed Research Officer with the Queensland Department of Agriculture and Stock and was employed part time by CSIR Division of Economic Entomology to work under Ken Key to study clothes moths infestations in Brisbane wool stores. A letter to Ian survives from this time written by A.J. Turner, then doyen of Australian amateur lepidopterists, outlining the different clothes moths known from Australia. Ian continued at the University of Queensland graduating M.A. in Philosophy in 1946 and M. Agr. Sci. in 1953. He was later, in 1969, awarded a D. Agr. Sci. by the University of Queensland. From December 1944 to June 1945 Ian worked for the Queensland Department of Agriculture and Stock at Biloela and then at Rockhampton from 1945 to 1948. He worked principally on cotton pests, tomato pests and the yellow-winged locust.

While at university Ian met Jill Dowzer who had come to Brisbane from Rockhampton to study Arts. They met again when Ian was posted to Rockhampton and married in 1946. They had two daughters Frances and Jennifer. Throughout his subsequent life Ian was to benefit greatly from the constant support of his wife and family.

His interest in Lepidoptera had developed early and he had tales of collecting with school friends around Toowoomba and there are many specimens dating from this time in the ANIC. For many years there was a small cabinet, made by Ian from silky oak wood, housing immaculate, minute, reared Gracillariidae collected in his youth but now all incorporated into the main collection. In his formative years and the early years of his career Ian worked without close contact with other lepidopterists. Few people could have developed the skills and knowledge that Ian possessed without close contact with experienced, practising lepidopterists. That he overcame this immense challenge so successfully is a measure of the man. Although this close contact with other lepidopterists was denied to him he greatly admired F.A. Perkins then lecturer in entomology at the University of Queensland.

Ian was appointed to CSIR Division of Economic Entomology on 25 May 1948 after a State-Commonwealth tussle eventually involving Prime Ministerial intervention. He became Technical Secretary to A.J. Nicholson, Chief of the Division, and able to work half time on the taxonomy of Lepidoptera. In 1947 the Turner collection had been transferred to the Division of

Economic Entomology which was an added incentive for Ian to join the Division. In 1951 he transferred to full-time work on cereal crop and pasture caterpillars.

Ian's early years with the Division were marked by a series of world-class revisions of pest moth groups in Australia including *Heliothis*, *Agrotis*, *Persectania*, *Pectinophora*, *Scirpophaga* and *Epiphyas*. Also at this time he published his classic work on the bogong moth migration. In the 1960s he started revisionary work on the Australian tortricine Tortricidae following his work on *Epiphyas* and *Merophyas*. He later worked extensively on the higher classification of the Lepidoptera culminating in the internationally widely acclaimed Lepidoptera chapter in *Insects of Australia* (1970 and revised with E.S. Nielsen in 1991). In this phase of his work he described one new superfamily (Immoidea), two new families (Carthaeidae and Lophocoronidae), one new subfamily (Munychryiinae) and a new tribe (Epitymbiini). Following this he commenced work on the Oecophoridae, the favourite subject of his long and abiding interest in the vast Australian fauna. Throughout his career he also published on relevant or interesting items as they arose.

Altogether he published about 100 papers and seven books on Lepidoptera. The first books were the Jacaranda guides *Australian Moths* (1963, revised 1966) and *Australian Butterflies* (1964). In 1972 *Butterflies of Australia* (with D.F. Waterhouse) was published with a revised edition in 1981. This book revolutionised butterfly studies in Australia empowering a growing band of butterfly enthusiasts to make many original discoveries and observations. In retirement he published the massive and internationally significant *Moths of Australia* (1990) which was awarded the Whitley Medal by the Royal Zoological Society of New South Wales and his three great volumes on the *Genera of Australian Oecophorinae* (1994, 1997, 2000).

Besides his huge published contribution, Ian built the ANIC Lepidoptera collection from Turner's small, but important and well-identified, collection into the immense resource it is today. Ian's exquisitely preserved, set and labelled specimens of microlepidoptera still dominate the ANIC collection. He recognized the need to maintain a good working collection and, whatever the backlog of accessions, always kept a well-sorted, named, core so that the ANIC could maintain an identification capacity across the whole Order. The good order, high curatorial standards and large holdings of the collection attracted many top overseas Lepidopterists to Australia and greatly facilitated their work on the Australian fauna. With Ken Key, Ian helped in establishing protocols for the high quality maintenance and operation of the collection well in advance of their time.

To build a collection of a little-known and neglected fauna Ian recognized the need for field work and in the 1960s he and Murray Upton embarked on a series of renowned trips to various parts of Australia. They employed extensively the MV light for the first time and the expeditions were highly efficient camping trips dedicated to collecting with not a minute wasted. They were planned to the last can of beans and nothing was allowed to go wrong. These trips opened the eyes of many to how little was actually known of the fauna. Ian and Murray experimented with many light and sheet combinations and designed very

efficient light traps which effectively separated out beetles and other rugged insects from the fragile moths permitting for the first time trapped moths to be obtained in good condition in a warm country where insect activity is intense. Ian introduced the extensive study of moth genitalia to Australia and helped develop new staining techniques and a protocol for the successful mounting of moth wings for detailed study of the venation.

He participated in a 1953 expedition with C.B. Williams of Rothamstead, England, to the Pyrenees to observe insect migration followed by an academic year at the University of Cambridge and four weeks at the British Museum (Natural History) to study types. In 1966 he spent an additional six months at the BM(NH) photographing types of Australian microlepidoptera and dissecting the types of numerous Australian Oecophoridae. In 1979 he visited many overseas colleagues and collections and also gave the presidential address at the Lepidopterists' Society meeting in Fairbanks, Alaska.

Through his career Ian attracted dedicated colleagues who helped each other and obtained by synergy more than each could have attained individually. The Lepidoptera unit settled into a three person team, Ian as scientist, an experimental officer (Ted Edwards) and an assistant (most notably Vanna Rangsi), which achieved an efficiency now no longer possible when scientists have to grovel for funding and assistants are seen as short-term and dispensable. On Ian's retirement this synergy was maintained by his successor Ebbe Nielsen, who encouraged and facilitated some of the most productive projects of Ian's life. This was continued by Marianne Horak following Ebbe's untimely death. Ian had been one of Marianne's mentors who, with John Dugdale, encouraged her on an entomological career specialising in Tortricidae. Ian always maintained close collaborations with people who used his identifications and advice, overseas colleagues, the State museums, agriculture departments and amateur lepidopterists. He was a wonderful lepidopterist; as 'at home' in telling stories of moths and collecting with amateur lepidopterists as he was with discussing the higher classification with distinguished overseas colleagues. He was a master in all branches of the subject.

Ian achieved the rank of Chief Research Scientist in July 1974 and retired to Toowoomba in June 1982 when he became an Honorary Fellow of the Division of Entomology and in 2003 became an Emeritus Fellow. In retirement he continued to collect for the ANIC and his later books and papers were retirement projects strongly supported by CSIRO Entomology and ABRS. Throughout his career Ian remained a dedicated scientist and had no aspirations to enter administration.

He was a member of the Entomological Society of Queensland from 1938 and Secretary 1939-40 and a foundation member of the Australian Entomological Society in 1965 becoming Vice-President in 1969-72, President in 1980-81 and an Honorary Life Member in 1987. He was a member of the Lepidopterists' Society from 1949 and was Vice-President 1957, 1st Vice-President 1965, President in 1978-79 and became an Honorary Life Member in 1987. He was a foundation member of the Ecological Society of Australia, a member of the Linnean Society of New South Wales

from 1956 and a Fellow of the Royal Entomological Society from 1966. He was also an honorary member of the Sociedad Hispano-Luso-Americano de Lepidopterologia from 1982.

Ian's work was most widely recognized through the award of the Karl Jordan Medal by the Lepidopterists' Society in 1996 for his contributions to the study of Lepidoptera and he became an Officer of the Order of Australia in 2001 for his outstanding contributions to entomology, science and education in the community. He received the Jacob Hübner Award for Lepidoptera Systematics from the Association for Tropical Lepidoptera in 2003.

Ian was a wonderful person to work with. He saw the implications and ramifications of taxonomic work (and much else) very clearly and often well beyond the view of many contemporaries. He was scholarly, dedicated, thorough, meticulous (a word he employed) as well as very hard-working. Few minutes were wasted. He took great pains to excel in all he did. Yet with this he was indulgent of neophytes provided they had application, interest and enthusiasm. He was courteous, quietly spoken and modest. He was approachable, open handed with his immense knowledge and respectful of other views. He greatly valued the critical faculty which could separate the sound from the unsound. He could also express himself concisely and cuttingly when he found foolishness.

The entomological community has lost one of its most distinguished members who will be sadly missed. I am sure all members of the Society join me in expressing our deepest sympathy to Jill, Fran and Jenny.

Acknowledgements.
Jill Common, Marianne Horak, Murray Upton, Vanna Rangsi and Andreas Zwick kindly commented on the ms. Jill Common has generously made information on Ian's early years available. A manuscript, an article in *The Canberra Times* on 29 January 2000 and an article in *Qantas* in January 2001 all by Brad Collis have been helpful. Biographies in *The Lepidopterists' Society-Commemorative Volume (1945-1973)*, in *Biologue No. 24* by Ted Edwards and in Murray Upton's *A Rich and Diverse Fauna* have been of great assistance. A useful ms source was the nomination for the award of the Order of Australia prepared by the late Ebbe Nielsen. An ms biographical note by Ian himself was most valuable. Further biographical sources can be found in Murray Upton's book. Other original sources are housed in the ANIC Archives. A complete list of Ian's publications may be found in Greg Daniels' *Bibliography of Australian Entomology 1687-2000.*

Ted EDWARDS.

Arthur Nelson Johnston (1911-2006)

Nelson Johnston, a member of the Australian Entomological Society from its formation until his death, passed away at his home at Bowral, NSW on 9 July 2006, at the age of 94.

Born 1st November 1911, Nelson was the eldest of three boys of a family of dairy farmers at Rose Valley, Gerringong on the south coast of New South Wales. He was educated at Omega Public School and later at Nowra Intermediate High School. Awarded a Teacher's College Scholarship in 1930, Nelson attended the University of Sydney from where he graduated as a Bachelor of Agricultural Science in 1933. He went on to Sydney Teachers' College to complete a Diploma of Education with his first teaching appointment, in 1934, as lecturer in Agriculture at Hurlstone Agricultural High School. In 1937 he moved to Hawkesbury Agricultural College as Senior Lecturer in Botany and Entomology. In 1938 Nelson married Margaret Etheridge and they lived on the College grounds in the pre-war years where their only son, Donald, was born in 1940.

Nelson's teaching career was interrupted by the Second World War when he served in the rank of Major, Commanding Officer of the 2/5th Australian Entomological Research Unit in charge of Malaria Control. Stationed in Darwin and Cairns, Nelson was involved in the development of the insecticide DDT, for use against mosquitoes.

After the war, Nelson returned to Hawkesbury Agricultural College and continued to teach. In 1952 he joined Agricultural Services Pty Ltd (AGSERV) as Technical Research Director where he remained for 17 years until the Company was taken over by Geigy Australia. During this period he was responsible for the research and development of many insecticides, herbicides and fungicides still used in the crop protection and animal health industries in Australia.

Agrisearch Services was established in Orange New South Wales 1970 by Michael Hood. Soon after, he was joined by Nelson, with the business incorporated in 1972. Agrisearch Services was the first private, independent contract research and development organisation in Australia. Nelson's extensive experience in crop protection and animal health plus his wide network of contacts in government and industry were contributing factors to the early successes and growth of the Company. In 1980, Nelson sold his equity in Agrisearch Services to other members of the company yet continued to be involved as an Associate Director of the Company, where he searched for opportunities and new activities for Agrisearch Services to consider.

Throughout his life, Nelson had a continuing passion for self education and a desire to impart his knowledge onto others. Nelson was an active member of various professional organisations and associations and was a Fellow of the Australian Institute of Agricultural Science. Nelson was a great

communicator and often achieved his objectives through subtle persuasion, usually by commencing with the words "Pal, let me suggest we try it this way." Never a confrontationalist, he saw a combination of lateral thinking and consensus as a way forward when facing difficult situations.

Nelson moved to Kenilworth Village at Bowral in 1999 with his wife Margaret and after her passing in 2000, continued to maintain his education, communication and friendship with staff, fellow residents and his long-time associates, despite his failing health. Nelson is survived by his son Don and grandchildren Ben and Anna.

Martin COLLETT

Norman Campbell (Charles) Lloyd (1916-2006)

Norm Lloyd passed away in July this year following a long period in care at a nursing home at Cherrybrook, a Sydney suburb. He was a highly respected entomologist with the Department of Agriculture in New South Wales and spent most of his working life at Orange in the State's central west.

Born in England, Norman arrived in Australia with his parents at the end of WWI aged 2½. He was educated in Sydney, including five years at Hurlstone Agricultural High School. He went on to Sydney University and majored in Entomology, graduating in 1939. Following a brief period with CSIR working in the Goulburn Valley of Victoria, Norm joined the Entomology Branch of the Department of Agriculture in Sydney. Shortly after WWII, he was appointed as District Entomologist at Orange and worked on pests of a wide range of crops including potatoes, lucerne, pome and stone fruits. When the Department was regionalised, Norm found himself as Regional Entomologist covering an area from Emu Plains on the eastern edge of the Blue Mountains to Bourke in the State's west! He loved the work and really enjoyed living at Orange where he and wife Beryl became very involved within the community. In 1968 he reluctantly moved back to Sydney where, among other things, he assisted the Department with pesticide registration issues. He retired in late 1976 and embarked on a hobby collecting and identifying grasses of New South Wales. At one stage he had a collection of 400 of the 600 species thought to be in the State.

It is unclear from the Society records if Norman Lloyd was a member of the AES. Whether he was or not, he made an important and substantial contribution to entomology in New South Wales, especially the pests of deciduous fruits. He was also very active in the 1960s as part of the CSIRO-led "Cooperative Research Program into Apple Pest Management" which studied in great detail the pest and beneficials complex in apple and pear orchards. This enormous project also involved Norman's counterparts in Victoria, South Australia and Tasmania. Norm is survived by his daughter Marion and son David. His wife Beryl predeceased him. Many former colleagues and work associates attended his funeral at Epping, a clear indication of the esteem in which he was held.

Graham THWAITE

Norman Lloyd (wearing the hat) in discussion with a Mornington Peninsula apple grower (left), Neil Hudson (Tasmania) Dave Morris (Victoria) and Edwin Jones (New South Wales – back to camera) in 1965. The person obscured by Norm's hat is unknown.

ANNUAL REPORTS

Vice-president's Report

The core executive formally met 7 times since the last AGM which was held during the combined Invertebrates Conference in December 2005. This year has been one of consolidation for the Executive. A number of irritating issues seem to have been sorted out now that we are halfway through our term of office. One of these was electronic access to the Journal for those members who opted for this and we appear to have that sorted out now. Another was the availability of clerical support for the Secretary and Treasurer. Just when we thought we had ourselves organised, our original arrangement with **Leanne Palmer** of Charles Sturt University came unstuck when Leanne left the university. The Society is not in a position to directly employ staff, without considerable cost, so we had to look at other options. We are very grateful to **John Betts**, of NSW DPI, who gave us approval to purchase time with one of the clerical officers at Orange Agricultural Institute. For the last few months, **Jenni Tarleton** has been providing the necessary clerical work and has been available to take minutes at Executive meetings. This arrangement is working well.

Since the last meeting, **Aaron Simmons** has been Editor of the Society's News Bulletin, *Myrmecia*, and has been experimenting with a few new features. While these add to the readability of the bulletin, it is essential that news of entomological activity around Australia be reported to members. Aaron needs Regional Councillors to make regular reports for every issue on what has been happening in their region. Without this, the Society loses its main coherence. We may eventually find that an issue arises with the electronic delivery of the bulletin if it gets too big because of size limits imposed on some electronic mailboxes. I would see this as a good problem to have because it means there is much more contributed to *Myrmecia* than has been the case with some recent issues.

The journal is the flagship publication of the Society and has been creeping up in citation index quite impressively. **John Mathiessen** has approached his Chief Editor position with enthusiasm and professionalism and has the full support of the Executive in the policy changes he has introduced. It should be noted that our contract with Blackwells, which still has two years to run, was based on a society membership of 600. With members who have not paid their subscription fees risking losing their financial status, members leaving and a considerable load of subsidised members, both student and retired, our current

membership is below this magic figure. Additional members are very welcome and all members are urged to encourage workmates to join the society if they work with insects, even though they may not regard themselves as entomologists.

The final financial outcome of ICE has now been determined and Graham will have details in his Treasurer's report. It has taken a huge amount of time from Graham and the Society's auditors and they deserve our thanks and gratitude for dealing with the complex issues involved in such a professional manner. At the last AGM we considered options for which the windfall could be used. All back issues of the journal are currently being digitised by Blackwells and the issues will be made available free-to-air on the Blackwells website. Part of the negotiations for achieving this was gaining approval from the Entomological Society of Queensland to include the first five volumes (single issues each) which had been published by that Society prior to the establishment of AES. The ESQ accepted with enthusiasm our offer to include these volumes in the complete set which should be available for searching before too long.

A research grant scheme will also be established, funded from the interest earned from the ICE profits. This scheme will provide small grants, maximum $1000, for specific entomological purposes. Such a scheme existed previously in the Society and not only allowed members to undertake specific field trips or visits but also provided some interesting reports for *Myrmecia* on the results of the work supported. Watch *Myrmecia* for the first call for applications which should happen around the middle of next year. The 2005 combined Invertebrate Conference also delivered a profit for the society and **David Yeates** and his team should be congratulated on an outstanding result, both financially and scientifically. The society is also holding some funds in trust for the next Invertebrate Biodiversity and Conservation Conference to be held in Brisbane in 2007.

The Executive also gratefully acknowledges the support we have received from **Andrew Mitchell** as membership secretary, particularly in adapting the membership database, with **Holger Löcker**'s support, to meet the needs of the Treasurere. Andrew recently expressed concern that members only knew him as the name on the emails that he broadcast and to whom they were able to complain when things didn't go right. Andrew has been a valuable and valued member of the executive team and I look forward to a less clerical role for Andrew as we rationalise the division of labour now that Jenni Tarleton has come on board to support the Executive. It has been a pleasure having **Geoff Gurr** undertaking the role of Secretary. He brings an apparently calm and relaxed approach to AES business which decries the frenetic activity which is sometimes required.

The Society acknowledges the support we have received from our President, **Ian Naumann**, who reaches the end of his term of office at this AGM. Despite considerable time overseas, Ian has responded to calls from the Executive to chair special purpose committees or provide input to various issues that have arisen during the year. We are grateful for the effort he has put into his position. We also look forward to working with the new President, Professor **Jonathan Majer**, who is an eminent international figure in his field and who has served the society with distinction in various roles over the

years, including being part of the Perth Executive in the early 1990s.

Finally, we thank all members who have contributed to the Society during the year, either as Regional or Representative Councillors, as members of the Society's committees, as local representatives of various institutes providing reports for *Myrmecia* or as members who have paid their membership fees.

Murray FLETCHER

Treasurer's Report

Financial issues relating to the 2004 International Congress of Entomology continued to absorb lots of time and effort since the last AGM. The biggest problem was to do with the Society's Goods and Services Tax (GST) liability. The Society's ABN was used by the Congress Organising Committee and therefore the Society was responsible for collecting and paying the GST. My sincere thanks go to the Society's Auditor, Mr Ron Winterton of Todd & Niven, Orange, who sorted it out and then helped convince the Australian Tax Office to reduce the interest charge, halving it to around $9,500. We had just finalised this matter when the 2006 Adelaide Organisers asked if they could use the Society's ABN. Needless to say, I encouraged them to make other arrangements!

Despite the post-Congress financial complications, the end result was very much to the Society's advantage with a net surplus of $100,805. To this was added $4,072 earned in interest from the investment of the surplus funds when first received from the ICE Committee in June 2005. As discussed at the 2005 AGM, your Executive sought ideas on how this might be utilised for the benefit of all members. The Executive decision was to invest in four areas:

1. Upgrade the Society's Membership Database – $2,799
2. Support an initiative developed through CASR for entomology education – $10,000
3. Digitise pre-Blackwell issues of the Society Journal for access by all – $22,238
4. The remainder ($69,690) was invested for awarding small research grants.

The net balance of the Society's working account has decreased slightly from its position in 2005. While the audited statement will show it to be around $60,800, the account is holding the $22,238 set aside for digitising back issues of the Journal and $6,705 in trust for the IBCC, so the net position is more like $31,900. However, the annual payment of royalties from Blackwell Publishing was not banked until after the end of the financial year. Had this payment been included, the net position would have been around $49,440. The "AES Shop" operating out of Canberra with the help of Jane Wright and Heather Cosson-Williams has continued to contribute to the overall income of the Society.

Advice was given in the May issue of *Myrmecia* that members whose 2005 subs had not been paid by the end of the financial year would not receive services after that time. That was put into effect. At the time of preparing this report, emails or letters to those 69 members affected remain to be sent, but we hope that in most cases, non-payment is an oversight and that most will respond positively. At the end of June 2006

and after the cull, total membership was 512 plus 20 subscriptions for *Myrmecia* only. This 512 is well below the minimum 600 subscriptions for our Journal we pay to the publisher.

The Executive continues to address the backlog of outstanding services to members as recorded in the 2005 Annual Report. Progress with this has been less than satisfactory. The decision was made to seek some paid assistance and we thank Jenni Tarleton for her help. We are now confident that the backlog will be overcome by the end of this year.

Graham THWAITE

AJE CHIEF EDITOR'S REPORT

Aims, Scope and Ongoing Development of the Australian Journal of Entomology

The *Australian Journal of Entomology* is the premier vehicle for the publication of entomological research in the south-west Pacific region. It can only maintain this position if it continues to receive quality manuscripts and it minimizes the time between submission of a manuscript and publication of the paper. The Editorial Team, in conjunction with our publishers, Blackwell Publishing, works hard to improve the stature of the Journal, maintain high standards of peer review and endeavour to minimise turn-around times. Members can participate in this process by submitting their high-level papers to the Journal and promptly handling papers that may be sent to them for review.

The Impact Factor of the Journal has increased substantially in the last year, to now stand at 0.729. It can further improve its standing through publishing a wider range of top-quality papers that are cited in other works and by extending its circulation. The Editorial Team has recently taken some initiatives aimed at consolidating and building the Journal's prestige.

Volume 45, Part 4 which will be published in November will be a special single-topic issue. It is hoped that such special issues can become a periodic production, and I welcome expressions of interest in topics.

Beginning in Volume 46 in 2007, we will incorporate a section entitled 'Overview' as a periodic piece in the Journal, under the Technical Editorship of Roger Kitching. The intention with Overview is to present at the front of an issue of the Journal a short, serious, thought-provoking article on an area of entomology that is, or may become, a topic for vigorous scientific debate. Papers for Overview will be invited, but Roger or I welcome expressions of interest in proposals for topics. Our intention for Overview articles is to inform and stimulate the broader readership about current significant issues in entomology. They will not be conventional literature reviews, will not include new primary data and will have only a short list of key references.

Production

Production statistics for the *Australian Journal of Entomology* since the last AGM (see table over page):

Vol.	Part	Published	Pages	Papers
44	4	Nov 2005	135	17
45	1	Feb 2006	106	16
45	3	May 2006	78	9
45	3	July 2006	62	10

The larger page extent of Volume 44(4) and 45(1) reflect the effort to clear a backlog created by publication of the special issue for ICE. Publication of Volume 45, Part 4 is imminent and there are sufficient accepted manuscripts in hand to fill the next issue (Volume 45, Part 1).

During the period July 2005-June 2006, the flow of manuscripts was (last year in brackets):

Manuscripts: received 93 (106)
accepted 40 (71)
still in review 15
rejected/withdrawn/lapsed after review 6
rejected at submission 32
total rejected 38(35)

The number of manuscripts received during the early part of 2006 slowed markedly, affecting the total quite substantially. There was no apparent reason for the lull in submissions, which have since rebounded.

A large number of submissions are received from overseas, particularly from countries in the region spanning the Middle East across to East Asia. With the exception of those papers where the work was carried out while the author was in Australia or where one of the co-authors is Australian, these submissions are almost exclusively either clearly outside the scope and aims of the Journal (most notably dealing with species that do not occur in, or have no relevance to, our region) or are of poor studies that are usually very poorly reported. There are virtually no submissions in this category where the work is clearly of a high standard but has only been let down by the standard of English expression.

Some members may feel that special support should be given to submissions from developing countries. Unfortunately, the relevance and standard of almost all submissions from such countries is such that they are unlikely to be acceptable and they would present a very large processing overhead. Also, the authors very often ask for exemption from page charges which could impose an unacceptable financial burden on the Society should submissions be acceptable (see further comments below).

I am reluctant to send such manuscripts for review because of the risk of alienating reviewers and burdening the Technical Editors unnecessarily. There are some submissions that I feel are in this category, but outside my area of knowledge. In such cases I seek informal opinions from colleagues to confirm my view before rejecting them to ensure that all submissions are treated fairly and equitably. I thank those colleagues who have helped me in this task. Acceptances continue to run at around two-thirds of submissions.

E-Proofs and Electronic Manuscript Submission

Recent authors would have noted that proofs are now despatched electronically to them, to me and to the publishers direct from the typesetters using an 'E-proof' system that incorporates timelines and reminders. This is part of the ongoing process of seamless electronic handling.

Blackwell Publishing has previously demonstrated their 'Manuscript Central' electronic submission and monitoring system to us. We continue to monitor this innovation but at this time I still feel that the cost is prohibitive for a society of our size. Electronic processing of manuscripts is clearly the way of the future and I would regard it as only a matter of time before market penetration ensures that it becomes cost-effective for the Society.

Page Charges

As noted last year, in response to some concerns about last-minute requests for exemption from page charges, I have implemented a system that aims to ensure that authors commit to the charges, and budget accordingly, at the time their manuscript is accepted. This is aimed at overcoming any unforeseen budget effect of authors moving elsewhere or grants terminating between acceptance and publication or invoicing, which may be some considerable time.

Since implementation of this policy there have been practically no requests for exemption from page charges.

It is important to note that all 'waivers' or 'exemptions' from page charges are, in reality, a transfer of the full cost from the author to the Society. It is a cost to revenue that is not shared with the publisher as the Society receives all the revenue over a threshold defined in our contract with Blackwell Publishing.

There is no intention of making hardship for those who genuinely have no financial support or would have to rely on their own resources, particularly as would likely be the case for retired contributors working alone. Rather, it aims to establish capacity to pay and agree on any alternative arrangements at the time of acceptance rather than being presented with a *fait accompli* after typesetting.

A potentially difficult situation occurs in the case of authors from developing countries. Often, such authors request exemption from page charges at time of submission. Some members may feel that the Society should absorb the cost of page charges from developing country authors, but I am reluctant to provide a full exemption as I believe that it could create a precedent that will be difficult to reverse. While authors from some developing countries are under strong pressure to publish in English-language journals, it must be realised by authors and their policy-makers that this must include accepting the requirements of the target journal. The issue is, however, hypothetical at present because, as noted above, the acceptance rate of submissions from developing countries is almost non-existent, thereby nullifying such requests.

Electronic Access to Back Issues

Blackwell Publishing is presently in the process of digitising all back issues of the Journal and its predecessor, the Journal of the Entomological Society of Queensland. Once that task is completed, all issues of the Journal from its founding to the present will be available on the Blackwell Publishing web site as searchable and downloadable documents.

Blackwell Publishing has advised members individually of how to access the Journal online. I have also appended the general

instructions to this report.

Performance and Promotion

The availability of Blackwell's journals electronically and links to the Google search engine have increased dramatically the availability of papers published in the Journal. In 2005, there were 23,258 article downloads, compared with 26,480 in 2004. The small decrease reflects the very large surge that occurred in 2004 associated with the ICE. The number of individuals who are emailed the contents page of each issue stands at 1230.

The impact factor of the Journal was 0.495 in 2002, 0.433 in 2003, 0.486 in 2004 and 0.729 in 2005.

Blackwell Publishing continues to target the Journal at exhibitions at relevant major conferences and meetings, direct marketing through promotional material, especially in Europe, North America and East Asia, and through advertising in other Blackwell Science journals. The publisher reports comprehensively on all scientific, circulation and marketing metrics and initiatives for the Journal at the annual Editors' meeting which is held around August. I also encourage members to visit the Journal's web site at http://www.blackwellpublishing.com/AEN for information on the Journal.

Editorial Team

There have been some changes in the Technical Editor team during 2005. Geoff Gurr relinquished the role. I thank Geoff for his efforts. Ken Walker, Grant Herron and Tom Chapman continue to contribute great service to the society as Technical Editors. I welcome Tim Heard who took on the role of a Technical Editor following the 2005 AGM. Thank you to all the Technical Editors for their hard work. We continue to monitor the workload and regularly review the need for an extra Technical Editor. I also welcome Roger Kitching to the editorial team in the role of Editor of the Overview section beginning in 2007, and thank him for his enthusiasm for developing this new initiative.

The members of the production team at Blackwell Publishing Asia (Rose Williams, Eugene Tan and Suneel Jethani) have been vital in the smooth running of the journal and in meeting production schedules. Their professionalism, enthusiasm and dedication make them a pleasure to work with.

On behalf of the Technical Editors I also thank the Editorial Board and the many referees who have given expert opinion on manuscripts. These contributions are vital to satisfying both readers and authors and enhancing the status of the *Australian Journal of Entomology*.

John MATTHIESSEN

Membership Secretary's Report

The society currently has only 535 active members on its books, which is 90 members fewer than December last year. However there are an additional 114 non-active members in our new membership database. The non-active members include people who have resigned in the past year (12), leaving more than 100 people who have been suspended or excluded from the society for non-payment of subscriptions.

Current membership figures arranged by membership type (with difference between

2006 and 2005 numbers in parentheses) are as follows:
Full members, 368 (-71)
Student members, 36 (-12)
Retired members, 86 (-5)
Joint members, 16 (-2)
Honorary members, 5 (-1)
Affiliated societies, 3 (0)
Sustaining associates, 0 (-2)
Myrmecia-only subscribers, 19 (+1)

Four society members passed away in the last year,
Ian Common, Nelson Johnston, Gordon Pasfield and Bernard Stone.

New AES President

Professor Jonathan Majer has taken on the role of President of the Society for the next two years. Jonathan is Head of the Department of Environmental Biology and Curtin University of Technology in Perth and has been a long serving member of the Australian Entomological Society, including a term as Secretary when the Core Executive was last located in Perth. Further details on Jonathan's background and research interests can be found at http://muresk.curtin.edu.au/staff/jonathan/index.html

Murray FLETCHER

BOOK REVIEWS

***Castiarina: Australia's richest jewel beetle genus*, by Shelley Barker. ABRS, Canberra, 2006. Hardcover, 341 pp, 46 plates.**

The Australian fauna of the charismatic and popular family Buprestidae, the jewel beetles, is dominated by the speciose genus *Castiarina*. Shelley Barker has devoted over 30 years to the collection and study of these insects, in the process describing substantially more new species than any previous author. His work has now culminated in this lavishly illustrated taxonomic account of all 480 known species.

The title alludes to the richness of *Castiarina*, and it is rich in many senses. It is species-rich as a genus. Its members are richly coloured—yellows, reds, greens, blues, bronzes, purples in every shade and pattern. They have been a rich source of passion for collectors eager to discover new species, rediscover rarities or simply extend knowledge of distributions and host plants. And this passion has left a rich history of the people who, over the past 200 years, have strived to find, know and make known these fascinating insects. The handsome design of the book and the beauty of the beetles themselves make this volume an aesthetic treasure. Jenni Thurmer's exquisite cover and frontispiece painting of *Castiarina magnificollis* is a hint of what the reader is to find inside—every species in splendid full colour. (The sepia-toned plates of rows of male genitalia are a quaint contrast.) The attractive typeface with cursive headings and the off-white paper are most pleasing on the eye.

The introductory chapters are headed Distribution; Materials and methods; Collectors; Structural specialisations; Mimicry; and Conservation. Some of these chapters are disappointingly brief; for example, the topic 'Distribution' gets only one page. Barker states that 'predictions cannot be made about the distributions of many species [because] so little is known of the life histories'. We can't predict using host

(especially larval host) criteria because we don't know the hosts. However, I suspect that for most species one could at least make some informed predictions from models using climate criteria. Mention is made that Western Australia heads the list in total endemic species, followed by Queensland, but is this significant in biogeographic terms? After all, one might be excused for thinking this is just a size effect. In fact, in the case of WA the high diversity and endemicity of its fauna is a south-western phenomenon, but this is not explored. (The state's vast desert and northern parts are actually relatively depauperate.) Similarly, some discussion of the biogeographical relationships of the small but very distinctive-looking New Guinea fauna would have been welcome.

'Collectors' delves into the lives of those who have been captivated by the search for these beetles. Here, Barker's story is enormously enriched by having personally known many of the people, some of whom were able to give first-hand accounts of experiences in the field with the previous generation of collectors, working in the first half of the 20th century in a very different Australia. Sepia-toned portraits in the margins enliven the story.

External and internal anatomical characters useful for distinguishing species (and species groups) are covered in the short 'Structural specialisations' chapter. This is followed by one on mimicry, a subject evidently of special interest to the author. A set of 24 similarly coloured species, the *'Castiarina producta* mimicry group' are considered by Barker to be 'a classic example of Müllerian mimicry'. Another group of 26 species mimic distasteful lycid beetles in what at first looks to be a classic Batesian mimicry ring. However, it has been shown that, at least some cases, the jewel beetles themselves carry bitter-tasting compounds, so the mimicry may well be as much Müllerian as Batesian. In the short 'Conservation' chapter the message is that we need to protect the habitat if we are to effectively conserve the beetles.

The 'Taxonomy' chapter begins with the nomenclatural history of the genus, followed by a full generic diagnosis then a key to species-groups, of which the author recognises about 110. The bulk of the book is a taxonomic treatment of the species-groups and their component species. All groups and species are taxonomically diagnosed, the latter, curiously, on colour and body size only. The species accounts also give full synonymies (and published mis-synonymies) and type data, and list some known localities. The book finishes with acknowledgements, references, short biographies of the author and illustrators, and an index of *Castiarina* species names, thankfully including the numerous invalid ones.

I found a few errors. The tiger beetle genus name *Cicindela* is misspelt, as are a few of the cited localities, although the latter may well have been copied from misspelt labels. *Castiarina roseipes* is listed as a synonym under two separate species, likewise *C. palagera*; *C. puella* and *C. leai* are treated as both valid species and synonyms; and *C. maculifer aericollis* is listed as both a *nomen nudum* and as a synonym. The male genitalia of the *sexplagiata* group are illustrated on Plate 19, not Plate 6 as stated on page 24.

A couple of additions would have improved this book. Considering the potential market,

a glossary of technical terms and labelled diagrams of the upper- and undersides of a whole beetle would have been appropriate. And for the foreign market, some help with geography in the form of one or more maps of Australia. Species distribution maps are also missing. Used judiciously by those familiar with Australian geography, such maps can assist with identification by eliminating species from consideration. A checklist of species, arranged under Barker species groups, would have been handy.

How does the book function as an identification manual? Despite full dichotomous keys to species being provided, using them will often present problems. If your beetle is a female you are stymied practically before you start the group key (a necessary first step) because couplet 2 uses a male sexual character. Another couplet asks whether your specimen is an 'oedemerid mimic'—fine if you are familiar with oedemerids! If you happen to have a new species—not entirely improbable given the rate they have been turning up in the last couple of decades—the group key may not place it correctly, since it often relies on characters of individual described species. In general, the keys would be reinforced and improved by the use of more characters. Some readers may resort to simply scanning the illustrations for their beetle.

What work remains to be done on *Castiarina*? Collectors will continue to discover new species, which will need to be described. I await a phylogeny, modelled species distributions and an interactive identification key (*Castiarina* would lend itself to such a key). Barker's *magnum opus* has laid a very solid foundation for this ongoing task.

Kim PULLEN

On The Fly – the Interactive Atlas and key to Australian Fly Families. Part of the ABRS Identification Series. By Joanna Hamilton, David Yeates, Anne Hastings, Don Colless, David McAlpine, Dan Bickel, Greg Daniels, Margaret Schneider, Peter Cranston and Steve Marshall. Published by Australian Biological Resources Study (ABRS) and Centre for Biological Information Technology (CBIT) - 2006. CD ROM. ISBN-10: 0 642 56845 6 ISBN-13: 978 0 642 56845 8 Recommended retail price: AU$59 (exclusive of GST). If within Australia add 10% GST and AU$9 postage and handling; outside Australia add AU$15 postage and handling. Order from http://www.cbit.uq.edu.au/software/onthefly/purchase.htm.

This interactive LUCID key is the latest in the ABRS identification series of CD-ROMs. For someone like myself, who knows very little about flies, and finds them challenging to identify to family level, resources like this are a blessing. The diversity and ubiquity of the Order in terrestrial and aquatic habitats makes them attractive for researchers doing biodiversity surveys, and this CD allows non-dipterists to access vital taxonomic and biological information for this type of research.

One of the best aspects of this resource is its ease of use – much of it is intuitive, and that which isn't intuitive is easily found in either the introductory tutorial or the help section. As with other LUCID-based keys, users can identify the family to which a specimen belongs, then use a browse feature which allows them to click on each

family and access representative images, information on biology, morphology and global distribution, as well as some information on endemic Australian genera within the families. Of particular note is the amazing anatomical atlas.

I spent an educational day in the Entomology section of the Australian Museum, working my way through a drawer of unsorted Diptera to test my ability to key them using *On The Fly*. I met with mixed success, as might be expected for a first-time user who was ignorant of both dipteran anatomy and classification. My accuracy at identifying flies to family rapidly improved as I gained more experience in using the characters in the Lucid key. Given the difficulty for the non-initiated to identify flies to family, I would classify the identification key of *On The Fly* as a fabulous tool.

On a somewhat negative note, there is evidence that *On The Fly* would have benefited from a more thorough proof-reading as there are many avoidable spelling errors, particularly in the text descriptions of fly families. There are also several broken links between thumbnail images and larger images, which is a small, but annoying problem. I'm sure that these issues will be redressed in future editions. I would also like to have seen a scale bar added to the fly images to give an approximation of adult size when appropriate.

This is a resource that will prove valuable to people from many backgrounds as it is written in a clear, accessible style; avoiding jargon as much as possible. The basic biology sections are suitable for the general public and for school-aged children researching a biology project. The atlas, identification key and family level descriptions will be useful to both undergraduate students and to those doing ecological surveys. Access to a good quality microscope and a certain amount of background biological knowledge is required to make full use of the key. I can easily see this product making its way into both high school and university libraries.

Tish SILBERBAUER

Book available for review

There is a copy of Horak, M. Olethreutine Moths of Australia by CSIRO Publishing for review. Please contact the editor if you would like to review this book.

REGIONAL NEWS

NEW SOUTH WALES

EMAI Entomology Insecticide Resistance

Grant Herron EMAI and **Sonya Broughton** Dept. Agriculture & Food WA have just completed their final report for HAL titled "HG03003: Evaluation of insecticides for western flower thrips resistance." Sonya and Grant are now ready to start there next collaborative study titled "VG06004: The stainable use of pesticides, especially spinosad, against WFT in vegetables" **Martin McLoon** Molecular Biologist EMAI is processing aphids that survived a discriminating dose of pirimicarb, chlorpyrifos ethyl and profenofos. These samples are particularly important for verifying molecular techniques for monitoring resistance in cotton aphid because the two organophosphate compounds chlorpyrifos ethyl and

profenofos are likely resisted by different mechanisms.

Grant's co-supervised PhD student **Thalavaisundaram Swaminathan** recently submitted his first refereed journal publication to the *Australian Journal of Entomology*.

Jeannette Rophail, **Graeme Gullick**, and **Carolyn Griffin** are preparing for the Insecticide Resistance group's external audit that is required to maintain the laboratories ISO9001 standard endorsement.

The casual technicians **Thalavaisundaram Swaminathan** and **Mukhter Hossain** have been finishing the final resistance tests for last season's strains of cotton aphid.

University of New England

PhD student **Christopher Carr** is commencing widespread sampling for egg parasitoids on the Breeza Plain and wider Liverpool Plains for the spring/summer season. Identification is being assisted by Dr **Robin Gunning** (NSW DPI) using iso-enzyme analysis. Christopher is also conducting choice tests of different crop preferences by Trichogramma with Dr **John Stanley** (Agronomy, UNE).

Nigel ANDREW

Orange Agricultural Institute

The Natura Morta paintings by **Emil Zeck** and **Margaret Senior** had another outing at the Muse Gallery in Sydney in August as part of Science Week and the inaugural Ultimo Science festival. At the opening of the exhibition, **Tim Entwisle**, of the Royal Botanic Gardens and a member of the Agricultural Scientific Collections Trust, gave a revised version of his keynote address from the 2005 combined invertebrate conference in which he extolled the value of scientific collections and the new ways these are now being used.

Andrew Mitchell has moved up into management as Research Leader, Biotechnology and is spending time in head office learning his new responsibilities. He intends maintaining his presence in the OAI lab once he is settled into his new position.

Birgit Löcker has completed her PhD thesis and disappeared for five weeks to North Queensland. While on her holiday, we were notified that she had won the 2006 AES Phil Carne Prize which was collected at the AGM in Adelaide, in her absence, by her university supervisor **Geoff Gurr**.

Murray Fletcher attended the combined AES/NZES conference in Adelaide and presented two papers himself and was coauthor of two others. Murray also represented the collections unit at the CHAEC meeting held in the Royal Society of South Australia's rooms prior to the conference. In the preceding week, he visited **Linda Semeraro** and **Mali Malipatil** at Knoxfield and **Ken Walker** and **Peter Lilywhite** at the Museum of Victoria, now disguised as the Melbourne Museum. He also represented the AES Executive at an Editor's meeting in Melbourne with Blackwells in August. Late in September, **Peter Gillespie** visited the Queensland Museum and QDPI and had a look through the ANIC whitefly collection which is currently housed with **Paul de Barro**.

Visitors to the unit in recent months have included **Anett Richter** from University of Canberra and **Piotr Trebicki** from DPI Victoria to talk leafhoppers and **Alan Boulton** from Yanco to look at aphids prior

to travelling to Europe on a DAFF-funded capacity building scholarship.

Murray FLETCHER

Australian Museum Entomology Collections & Research

Construction of the new Collections and Research Building is imminent now, and the collections staff in Entomology have been busy putting rubber pads under cabinets and shifting type specimens. One section of existing building which is to be demolished sits only a metre away from collection storage area, whilst many other ento staff have their office and lab space very near the "epicentre" of planned demolition and construction. We are expecting that quite a bit of field work and leave will happen from October onwards as staff seek to escape from the noise and vibration. Perhaps some of them will have the opportunity to visit the new northern abode of a certain retired AM entomologist.

The new building will eventually house the entomology wet collection, as well as a significant chunk of the dry collection. At this stage it is unclear as to where staff which are currently situated in the former National School Building will end up, but the remainder of entomological staff will not be moving.

Dave Britton visited the Adelaide meeting of the Entomological Society, as well as attending a KE EMu database users group meeting at Canberra. **Dan Bickel** has been busy with his research and teaching commitments in Fiji over the past month, and also attended the 6th International Congress of Dipterology at Fukuoka, Japan.

Australian Quarantine and Inspection Service (AQIS) Rosebery NSW

Two staff profiles follow on the staff at Roseberry.

Ross Rickard graduated with an honours degree in Agricultural Science from the University of Sydney in 1999. His honours year was a taxonomic study of *Geoscapheus dilatatus* (Saussure, 1864) the common soil burrowing cockroach which was funded by a scholarship. Since graduating Ross has been working at the Australian Quarantine and Inspection Service (AQIS) as an entomologist and currently as the senior entomologist for AQIS NSW.

Ross's daily activities including managing a small team of entomologists who are required to identify a broad range of taxa intercepted from imported and exported commodities. Other tasks include providing technical advice and training to quarantine officers.

Recently two entomologist positions were advertised and the successful candidates were **Dr Jurgen Otto and John Nielsen**. Jürgen has contributed the following profile and photo. Jürgen studied biology at the University of Bremen (Germany) and early on started specialising in the taxonomy of mites. For his Diplom (Masters) thesis he visited ANIC for a year-long study on the systematics and biology of a predatory mite that had been introduced into Western Australia as a biologic al control agent. He then followed on with an ANIC-based PhD

project on the systematics of mites in the subfamily Erythracarinae, large, hairy, and extremely fast mites that inhabit the semiarid and arid areas of Australia. Subsequently Jürgen swapped the dry and dusty interior for the warm waters of the Great Barrier Reef to do his fieldwork. For three years he was employed by the Australian Institute of Marine Science in Townsville to carry out the first taxonomic survey of marine mites inhabiting the coral reefs and sandy beaches of Far North Queensland, resulting in the discovery of numerous new taxa. He then completed a GIS and remote sensing degree at James Cook University in Townsville and as an officer of the Great Barrier Reef Marine Park Authority spent the next two years mapping the reefs of the Great Barrier Reef Marine Park from satellite images. Jürgen recently commenced work as quarantine entomologist for AQIS NSW where his main task is to identify intercepted insects and mites and provide advice and training to quarantine officers.

University of Sydney

The Agricultural research group, Sarah Mansfield, Alan Clift and five PhD students attended the Entomological Society Meeting in Adelaide. Between them, they presented 5 talks and 2 posters, drank various alcoholic beverages and generally had a great time.

University of New England - Ozentomology email list

The Ozentomology email list is a communication forum for those interested in Australian entomology. It is an informal, unmoderated, and non-commercial email list. It is principally used for advertising job opportunities, requesting information, giving notices of meetings, and requesting specimens. It is a low-volume list (generally 3-4 posts/week) and manages to remain spam-free.

You can subscribe and unsubscribe via the internet by going to: https://mail.une.edu.au/lists/cgi-bin/listinfo/ozentomology (please note the "s" on the end of the http part of the URL).

Through the options available on the subscription page, you can choose to either have the emails sent to you as they are posted to the list, or to have them sent as a daily digest.

To post a message to the email list, simply address an email to ozentomology@pobox.une.edu.au and it will be distributed to the membership. Only members may post messages to the email list (this is a method for excluding spam messages). Alternately, non-members may email Tish Silberbauer at tsilberb@yahoo.co.uk and request for a message to be forwarded to the group.

The Ozentomology email list is hosted by the University of New England and is run by

Tish Silberbauer.

Tish SILBERBAUER

TASMANIA

Dick Bashford (Forestry Tasmania) has been setting up pheromone traps in an urban monitoring program with Quarantine Tasmania. The targets are exotic timber insects and selected high profile forestry insect pests. Traps have been placed within a two km radius of all international ports and airports in Tasmania as well as at tree importer nurseries and other nursery distributors. Potted advanced trees of urban street-tree species have also been placed in all port wharfs, to be monitored for exotic pathogens. This is the second year of a three-year program funded by DAFF.

Simon Grove (Forestry Tasmania) has recently had the luxury of being able to focus on analysing and writing up findings from the first five years of the Warra LTER site log decay study, which is looking at the long-term succession of saproxylic beetles in oldgrowth and regrowth *Eucalyptus obliqua* logs. Twelve logs, felled for the study in 1999 and sampled with emergence traps for three years each over the subsequent five years, have together revealed a total of 311 saproxylic beetle species.

While on the subject of insects and dead wood, the following publication, arising out of a symposium held at the ICE in Brisbane, is now available from the USDA Forest Service Southern Research Station:

> Grove, S.J. & Hanula, J.L. (2006). Insect biodiversity and dead wood: proceedings of a symposium for the 22nd International Congress of Entomology. Gen. Tech. Rep. SRS-93. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station. 120 p.

Hard copies can be requested by email at: pubrequest@fs.fed.us. It is also posted as a pdf at:http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs093.pdf.

And if you've ever wondered what mysterious insects lurk under large logs that only a forestry excavator can roll, you may want to read the following, available from the lead author (simon.grove@forestrytas.com.au):

> Grove, S.J., Richards, K., Spencer, C., & Yaxley, B. (2006). What lives under large logs in Tasmanian eucalypt forest? *The Tasmanian Naturalist* **128**: 86-93.

Jane Elek (Forestry Tamania) commented recently that her study species (leaf beetles in the genus formerly known as *Chrysophtharta*) have recently been abolished, and she's wondering if that means the problems they cause forestry will go away too. Unfortunately it's not as simple as that - it's just that **Chris Reid** (Australian Museum) has done a taxonomic review of the Chrysomelines and synonymised *Chrysophtharta* with *Paropsisterna*. To find out more, read:

> Reid, C.A.M. (2006). A taxonomic revision of the Australian Chrysomelinae, with a key to the genera (Coleoptera: Chrysomelidae). *Zootaxa* **1292**: 1-119.

Finally, **Ted Martin** reports that the next issue (4) of *Moths in Australia* Newsletter is due out in October, and is available as a

PDF file from Ted (elmartin@southcom.com.au).

Simon GROVE (retiring councillor)

AUSTRALIAN CAPITAL TERRITORY

ANIC

The biggest news in ANIC at the moment is that we have begun preparations for the installation of a compactus storage system for large parts of the collection, which was made possible by a generous bequest to CSIRO from Mr Alan Cox. This should allow us to use the existing floor space much more efficiently, and eliminate the need for any new buildings for the foreseeable future. Most parts of the collection will be affected in one way or another. Collections of some orders will be transferred to the new storage system, and others, especially Coleoptera and Lepidoptera, will gain floor space to relieve their present level of overcrowding. Work on installation of the compactus machinery proper will begin in January 2007 and continue until about the end of April. Preliminary reorganisations have already begun, including rearrangement of office accommodation for some staff. Both collections and people will be moved, so visitors and people needing access to the collection may have to be a little more patient than usual for the next few months.

Our normal routine was also disturbed over the Labour Day long weekend by fumigation of the whole ANIC building. Canberrans have learned to live with bogong moths, and we have permanent measures in place to minimise their impact in our buildings. However, we can't keep them out completely, and when they crawl away into nooks and crannies to die, their bodies provide a food source for dermestids and other vermin. The only really effective way to eliminate these pests is by fumigation, so staff had a very good excuse for not coming in to work over the weekend.

Congratulations are due to Matthew Colloff, Anne Hastings, Fiona Spier and Jean Devonshire, who received a Whitley Certificate of Commendation for their interactive web-based key *Centipedes of Australia*. The key is the end product of a collaboration between CSIRO Entomology and Dr Greg Edgecombe from the Australian Museum in Sydney. Dr Colloff and Ms Spier received the award on behalf of the group at the presentation ceremony at the Australian Museum on Friday 15 September. Despite the importance of centipedes as predators in some ecosystems, *Centipedes of Australia* is the first comprehensive key to Australian centipedes to be produced by experts in the field.

ABRS-funded visitor Hong Pang, from the Southern China University in Guangzhou, spent a month working with Adam Slipinski on a revision of the coccinellid genus *Diomus*. She has now returned to China, but will be back for another visit next January.

The Lepidoptera team are celebrating the publication of Marianne Horak's book *Olethreutine Moths of Australia*, the tenth volume in the series of Monographs on Australian Lepidoptera. Marianne and Ted Edwards and a team of collaborators did some challenging field work at Kin Kin, near Gympie, looking for more specimens of a new family of Lepidoptera, which is presently represented only by a single larva. Max Day and Celia Miller have been devoting a lot of effort to unravelling the

intriguing biology and behaviour of a group of scribbly caterpillars in the genus *Ogmograptis*, which make the characteristic scribbly markings on the bark of eucalypts. Their biological observations, and Marianne's taxonomy, point to the presence of four species of these distinctive moths in Canberra alone. Richard Peigler from San Antonio Texas visited ANIC to work on his world catalogue of Saturniidae in collaboration with Rolf Oberprieler, and gave a fascinating talk about the uses of wild silk to produce fabrics in a range of cultures.

Rolf is making major progress in sorting the weevils from Zimmie's various collections and incorporating them into the main collection. The ANIC's weevil collection now includes identified representative material of all regions of the world, greatly facilitating both research and identifications. He also published a substantial paper on the phylogeny of weevils of the subfamily Oxycorinae (Belidae), which grew out of a talk he presented at the symposium on the evolutionary history of the Phytophaga at the International Congress of Entomology in Brisbane.

Mike Hodda has been travelling, to a meeting of the European Society of Nematologists in Bulgaria, where he presented two papers. He also visited the Natural History Museum in London to check some types, and the Central Science Laboratory in York, for discussions on identification of nematodes in the genus *Aphelenchoides*, which includes pests of a range of horticultural crops. His trip also included participation in an international working group on the pine wilt nematode in Lisbon, Portugal, with special emphasis on surveillance and quarantine of this dangerous pest. In late November Mike will present a course on nematodes in cropping systems including plant parasitic, entomophilic and free-living species, to a group of postgraduate students and technical and advisory staff at Murdoch University in Perth.

Jacquie Recsei and Tom Weir spent two weeks in the Philippines making a survey of the condition and management of arthropod collections there, as part of a national program to assess the facilities needed to support that country's agricultural export industries. They visited entomological research facilities in 16 universities and government institutions, and found enthusiastic staff who are doing valuable work for their country, often with limited access to equipment and support services. Their report identifies priorities for future development of these collections and the associated staff.

Visitors to the thrips room have continued to keep Laurence Mound busy. Gerald Moritz (Halle, Germany) visited for a week to help start a new Lucid project on Australian thrips. Desley Tree (QDPI, Indooroopilly) spent a week on a project concerning the thrips fauna of the Brisbane Forest Park. Cao Le (Waite Campus) visited seeking help with the biology and identification of *Haplothrips* species. Arturo Goldarazena (Spain) spent a week identifying thrips from a biodiversity survey of the Smokey Mountains, Tennessee. Mark Hoddle (Riverside, California) visited for four weeks to develop a new Lucid system for identifying more than 150 thrips species from California, and Leigh Pilkington (Gosford HRI) arrived to take control of the computer design aspects of this project. Kambiz Minaei (Shiraz, Iran) returned home after 11 months studying *Haplothrips*,

having completed six jointly authored manuscripts - an exemplary student. Amidst this turmoil, Laurence found time to present a paper on evolutionary radiation of thrips at the Acacia Symposium in the Botanic Gardens, Melbourne.

We were sad to see the departure of Christine Lambkin, who left to take up a position at the Queensland Museum. This represents another step in the continuing decline in the level of specialised taxonomic expertise in ANIC, as people leave or retire and are not replaced.

Bruce HALLIDAY

QUEENSLAND – FAR NORTH

In July**, Jane Royer** (QDPI&F Cairns) and **Kerrie Huxham** (AQIS, Mareeba) began their scale, mealy bug and aphid taxonomy intensive which is funded through the OCPPO/ DAFF taxonomy awards that Jane and Kerrie were awarded earlier this year. A challenging week with John Donaldson and Desley Tree at QDPI&F Brisbane was spent perfecting the mashing and moutning techniques, and delving into the taxonomy. The final week is scheduled for early November. Jane and Kerrie would greatly appreciate donations of scales, mealy bugs or aphids to be used during the course. Kerrie may be contacted at kerrie.huxham@aqis.gov.au or Jane at jane.royer@dpi.qld.gov.au.

Above. Jane Royer, John Donaldson and Kerrie Huxham examining mounted scale specimens

AQIS

Michael Gorton has been announced as the new AQIS Operational Entomologist in Cairns. His role includes the identification of commodity intercept specimens from Townsville, Mackay, Weipa and Thursday Island and the training of ports staff in monitoring and identification techniques for timber pests and mosquitoes. Michael has lived on the Atherton Tablelands for the last 4 years, so may be considered a local. The Society also extends a warm welcome to one of its newest members **Sally Cowan**, the NAQS Entomology Technician in Mareeba.

QDPIF

Jane Royer, heading up the Scientific team at the Electric Ant Control Centre in Cairns, has recently completed an ecological impact assesment which looked at the impacts of *Wasmannia auropunctata* on local fauna. Preliminary results indicate a drastic displacement effect on local ants. Results will be published formally in the near future. The first round of treatment has been completed, and has resulted in a noticeable reduction of *Wasmannia*. Another treatment round is anticipated for next month. Federal funding for a longer term eradication program is to be announced in December.

This from Kylie Anderson (who lives in the infested zone): The presence of the ant has affected residents in many different ways. Avid gardeners have cut down the amount of time spent outdoors, as the ants will sting

repeatedly on soft bodily parts. The itch from the sting lasts for several hours, and in some cases will form a large red welt with pus. The ants also fall into swimming pools (or maybe they like a cool dip?), so that when a person enters the water, large numbers of stings are experienced all over the body. The ants have been discovered inside bed-side water containers, and have been reported to sting inside the mouth. They also get into bedding, and the grout in showers! It is hoped that the Federal Government will generously support an eradication of this damaging pest.

JCU

Philip Newey, PhD candidate at JCU Cairns, is busy probing into the secret life of the green ant, Oecophylla smaragdina. Green ants are a very common sight in the far north, but southerners may be less familiar with them. The ants form very large multi-nested colonies, which often extend across several trees. The nests consist of leaves woven together using silk produced by larvae. Under normal conditions a single queen lays all of the eggs. However, under certain conditions workers are expected to lay unfertilized eggs that potentially develop into males. Philip is investigating the factors that prevent and/or lead to worker egg laying. The study may increase our understanding of the evolution of insect sociality, and the conditions under which individuals will sacrifice their own reproductive capacity in order to raise the offspring of a close relative (the queen).

After 40 years studying ants and other 'social insects', James Cook University's **Professor Ross Crozier** has received international acknowledgement for his work. Professor Crozier, JCU's Professor of Evolutionary Genetics in the School of Marine and Tropical Biology, has received the inaugural Hamilton award from the International Union for the Study of Social Insects (IUSSI). The award was made at the 15th Congress of IUSSI held recently in Washington. Professor Crozier said that the Congress was told his award was for life-time contribution to the knowledge of the evolution of social insects, for studies of their evolutionary genetics, and for fostering the careers of now leading researchers. "It's a great honour to receive the award, particularly being the first person so honoured," Professor Crozier said. "The fact that it is named for a scientist I greatly admired adds to that honour." William Hamilton, for whom the award is named, was a major theorist in evolutionary biology and advanced the understanding of the evolution of social behaviour and host-pathogen co-evolution. "Bill was relentless in his pursuit of wisdom and was famous for founding a view of the world profoundly changing the way evolutionary studies are done," Professor Crozier said. He said that his own research on ants began more than 40 years ago with his work on his MSc degree and later his PhD. "Social insects are ants, various types of bees and wasps and termites, and are referred to as 'social' because there is a division of labour between the workers and those involved in reproduction such as a queen bee." Some of Professor Crozier's recent work has included looking at the colony structure of social insects including invasive species such as the European Wasp and the Red Imported Fire Ant. The Hamilton Award will be given by IUSSI every four years to a senior scientist in recognition of his or her accomplishments in the area of social insect research. The next award will be made at the four-yearly congress of IUSSI in

Copenhagen in 2010.

Above. Professor Ross Crozier at work

News from Kuranda

Dave Rentz continues to collect at his Kuranda rainforest home. The majority of specimens go to the ANIC collection but he is also building up the QDPI&F collection in Mareeba, having added hundreds of species of orthops and leps alike. He collects locally and has been on trips with **Jack Hasenpusch** and a number of overseas visitors.

Kylie ANDERSON

QUEENSLAND - SOUTH

University of Queensland

Seems to have been a time to travel. **Myron Zalucki** has been on study leave visiting colleagues in the USA; **Steve Malcolm** at UWM in Kalamazoo, Michigan and **Tim Paine** at UCR, California). He was only back in the country for a couple of weeks when he virtually swapped places with **Mike Furlong** in Fiji and Samoa on an ACIAR diamondback project. **Myron** ended his SSP by visiting Professor **Liu Shu-sheng** at Zhejiang University in Hangzhou, China. Since then **Mike, Myron** and **Bronwyn Walsh** (QDPI) have been back to Samoa and Fiji for ACIAR Brassica project related workshops (**Mike** stayed on in Fiji for a well earned break!). **Gimme Walter** is away for most of second semester on Study Leave in Japan and then New Zealand till next year! **Hugh Dingle** is also back in town after a stint back in the USA.

In his short stay in Brisbane **Myron** attended a Scientific Advisory Committee meeting reviewing progress on red imported fire ant eradication.

Congratulations to **Nikki Sims** on confirmation of her PhD candidature. **Nikki** is working on assessing the impact of various introduced insect on groundsel. Welcome to **Maclean Vagalo** an ACIAR John Allwright fellow from the Solomons. **Maclean** will be working on "slipperi kabis" with **Mike Furlong** as his principal supervisor. Welcome too to **Lynda Perkins** who has joined **Bronwen Cribb**, **Jim Hanan** and **Myron Zalucki** on an ARC project modelling caterpillar movement on plants. **Lynda** has been heard to remark that caterpillars were a bit more interesting than mosquitos! **Lynda** and **Bronwen** visited **Dave Murray's** groups in Toowoomba to get the low down on heliothis rearing. **Mark Wade** is set to make a return to UQ on a short-term weed CRC sponsored project. **Mark** will be working out of CSIRO Indooroopilly and UQ. Congratulations to **Damien Cupitt** and **Elizabeth Williams** on successfully completing their honours.

Welcome to **Dr Masatoshi Takeuchi** from Tokyo University of Agriculture who is on sabbatical for a year. Masatoshi will be

working on trenching behaviour is sawflies with **Gimme** and **Myron**. Rumour has it that **Paul Cunningham** will be returning for study leave at UQ in November.

After more than 27 years at UQ, **Margaret Schneider** has retired as of the end of June! However, she will not sever all ties with the Entomology Section at UQ as she will have an adjunct position in the School and plans to revive her research on the systematics of Australian Conopidae (Diptera). She is adamant that those papers will be written now that students will not be constantly knocking at her door. **Margaret's** email and other contact details will not change.

Myron ZALUCKI

USDA Australian Biological Control Laboratory

Jeff Makinson recently returned from Singapore. He had been based in an apartment there for almost a year working on a stem-boring moth for biological control of the Old World Climbing Fern, *Lygodium microphyllum*. Staff are now being rotated to through this location for short periods to continue research on this moth. ABCL is currently developing and artificial diet to improve success in rearing adults.
Tony Wright and **Ryan Zonneveld** are also working on a defoliating moth for controlling *L. microphyllum*.

Anne-Marie McKinnon has started working as a casual at ABCL to assist with rearing *Haplonyx multicolor*, a weevil recently sent to quarantine facilities in Florida for evaluations as a control agent of the paperbark tree, *Melaleuca quinquenervia*. Most of these weevils were collected by **Bradley Brown** in tropical areas of North Queensland. Galls formed by the fly *Fergusonina turneri* are currently being collected and shipped to Florida to support field releases after this insect which was approved as a biocontrol agent in 2005.

Matthew PURCELL

Forest Entomology

Ross Wylie and **Murdoch De Baar** have accepted Voluntary Early Retirement (VER) packages effective immediately.

Ross spent seven years as a Forest Entomologist in Papua New Guinea before commencing in the Queensland Department of Forestry in 1974. The University of Queensland awarded him a PhD for his thesis 'Native tree dieback in southern Queensland: its occurrence, severity and aetiology' in 1987: he is the patron saint of koalas! **Ross** was involved in large-scale salvage operations to inhibit degrade of fire damaged logs by insects and fungi in 1995. He has worked extensively in the Asia/Pacific region on numerous aspects of Forest Entomology including pests and diseases of acacias and eucalypts, biosecurity, and management of mahogany shoot borers. He was President of the Entomological Society of Queensland in 1979 and Chaired the Scientific Advisory Panel for Fire Ant. **Ross** received the Australia Day Medal for achievement in 1999.

Murdoch commenced in the Department of Forestry in 1965 as a Forest Trainee and retires as a Senior Forest Entomology Technician. He has been Curator of the Queensland Forest Insect Collection (QFIC) since 1974. **Murdoch** is a great naturalist with extensive knowledge of the pests of

standing trees and timber. He has specialist experience with mistletoe and mangrove insects and a passion for Lepidoptera taxonomy (Papilionoidea and Hesperioidea). He was Councillor for the Entomological Society of Queensland for the years 1984 to 1988.

Brenton PETERS

Alan Fletcher Research Station, Queensland Dept of Natural Resources, Mines & Water, Sherwood:

Michael Day visited Fiji in July, as part of an ACIAR-funded project on the biocontrol of Mikania micrantha. He met with Warea Orapa from the Secretariat of the Pacific Community and Roch Desmier de Chenon from Indonesia who brought in cultures of Actinote spp., a butterfly introduced for the control of mikania. They discussed rearing methods and the host specificity program. The project also involves introducing agents into PNG and lasts for three years. Michael, Roch and Warea also attended the 7th International Workshop on the Management of Chromolaena odorata and Mikania micrantha in Taiwan in September.

Natasha Riding has been visiting lantana sites around southeast Queensland and northern NSW. The lantana rust Prospodium tuberculatum is now present in 18 sites in Qld and 32 in NSW, with the largest populations around Mt Warning and Mullumbimby. Natasha has also found teliospores of the rust, which is important for the survival of the rust over the dry months.

Entomological Society Of Queensland - Pat Marks Symposium Volume

Elizabeth Nesta ("Pat") Marks was a distinguished mosquito researcher in Australia during a long career prior to her death in 2003. She was also very active is the affairs of scientific societies and was instrumental in the formation of the Australian Entomological Society, serving as Vice-President, President and Chairman of its first Executive. She was also a past-president of the Entomological Society of Queensland.

To mark her passing the Entomological Society of Queensland held a half-day symposium at the Queensland Museum in October 2005. Eight speakers (Harry Standfast, Joan Bryan, Margaret Schneider, Geoff Monteith, Margaret Ward, Brian Crozier, Mike Muller and Brian Kay) discussed her life's contribution and looked at the modern status of mosquito disease and control in Queensland. The symposium was well attended with an audience of 80.

The proceeedings of the Symposium will be published by ESQ in a special issue of its journal, *Australian Entomologist,* to be issued about October 2006. The Australian Entomological Society has made a financial contribution to assist this publication. Subscribers to the *Australian Entomologist* will receive this issue as part of their normal subscription. However, extra copies are being printed for sale to interested members of both societies who are not subscribers. Geoff Monteith, convenor of the Symposium, is handling orders. Price is $10 per copy and this includes postage. If you wish to order a copy please send payment by cheque or money order to his address below. Cheques should be made payable to "The Australian Entomologist". Receipts will be sent by return mail.

Geoff MONTEITH

Queensland Museum

After 28 years at the Queensland Museum and a total of 44 years curating Queensland insect collections, **Geoff Monteith** effectively retires 30th June. Geoff will still be coming in as an Honorary but will of course now be able to concentrate on his own research interests. The prodigious hours and effort Geoff has put into building up the collections are legend and his will be a very hard act to follow. We all wish Geoff a very long and happy retirement (see Geoff at work below).

WESTERN AUSTRALIA

WA Department of Agriculture & Food

Sonya Broughton and Dave Cousins have started looking for black scale in olives as part of a three-year RIRDC funded project. The project which involves WA's olive growers will look at the phenology of black scale in different growing areas. Participating growers will be conducting their own studies and sending in samples for identification. Surveys for established parasites and predators will also form part of the project.

Curtin University of Technology

The Entomology laboratory is continuing to see a high degree of traffic. In March and May, **Rebecca Graham** and **Shae Callan** surveyed invertebrates at 36 sites across Barrow Island, including areas of rehabilitation and disturbance, as well as conservation-quality bushland. Five months of intensive invertebrate sorting at Curtin University ensued, and we believe that a significant amount of previously unrecorded material was collected for most orders. We are now ready to send off our samples to expert taxonomists around Australia and the world, and we expect significant increases in the number of genera and species recorded from the Island (550 to date). The dry season field trip will be conducted in late September and, after another short round of sorting, the team will move on to the curation, photography, and data-basing of the reference collection.

Jonathan Majer recently visited Brazil to assist Servio Ribeiro (Federal University of Ouro Preto) with the running of the Fourth Brazilian Canopy Biology Course. The course aims to train Brazilian graduate students in the techniques of tree climbing and in conducting research in this relatively inaccessible part of the forest ecosystem.

This time, the course was run in the Itacolomi National Park, adjacent to the University campus. Despite being in an area of subtropical rainforest, it was darned cold (see photo).

Aaron Gove visited Rob Dunn at North Carolina State University, to meet with lab members and discuss the progress of a collaborative ARC-funded project examining the role of ant seed dispersal in the particularly high plant species richness of Western Australia. The trip also featured visits to Duke University and the University of Tennessee and field trips to local North Carolinian forests and the Smoky Mountains. The outcome of this collaboration should be some papers in the near future.

Most recently, **Jonathan Majer** as instructor, and **Gabriel Bizimungu** as student, attended the American-funded Ant Course in Cairns (see write-up elsewhere in this issue). Gabriel then went on to Mareeba to conduct his final field trip to investigate the possible protective role of ants in Queensland coffee plantations.

Jonathan MAJER

VICTORIA

Entomological Society of Victoria

During the last twelve months the Society has continued to host speakers at its bimonthly meetings including: **Laurie Cookson** (a visit to his private collection of over 14,000 specimens); **Ross Field** (Biology of some unique butterflies from eastern Victoria); **Peter Marriott** (the presidential address showing the wonders of digital photography for flies and bees); **Rebecca Cardwell** (McCoy's Prodromus of the Zoology of Victoria) and **Ian Endersby** (Aquatic Insects, another emergency presentation to cover a speaker's absence). Museum Victoria has a large research project on McCoy's Prodromus in progress and Rebecca Cardwell's emphasis has been on the social and historical background of the artists who contributed the illustrations. A significant discovery was the recent location within the Museum's collection of a drawer of insects with labels in McCoy's handwriting; their numbers coinciding with those on the illustrations. Members were able to view a copy of the Prodromus, unpublished illustrations and the McCoy case of specimens. Meetings are held on the third Friday of even months, at the Melbourne Museum (usually), and visitors are very welcome.

Our newsletter is the backbone (or exoskeleton) of the Society. Most members belong for that rather than the meetings. Hardly an issue goes by without a lepidopteral theme (Lord Howe Island, Kangaroo Island, Tineidae, Oenosandridae, central Australia, perceived rarity, Kimberley and southwest Australia, foraging and fluid recycling, Satyrinae, *Theclinesthes*, *Jalmenus*, and the decline of Emperor Gum Moths. Although the cover bears a statement that scientific names are not published for purposes within the Code one author endorsed the raising of *Klinzigiana* (Lepidoptera: Papilionidae) to full generic rank. Non-lepidopteran contributions discussed the aggregation of collembola on water surfaces, one of Victoria's earliest dragonfly collectors, and mites and fleas found respectively on a Euryglossine bee and a Swamp Rat. With at least one issue per year including a colour plate, you really should subscribe.

The death of long-term member, **Keith Hately**, entomologist, naturalist and ranger from the Little Desert National Park, was marked with tributes from Charles McCubbin and Ted Edwards. Although he was not a member, the tribute to **Ian Common**, prepared by Marianne Horak & Ted Edwards was published for the information of members.

The AGM produced the same crop of office bearers – **Peter Marriott** (president), **Daniel Dobrosak** (editor), **Ian Endersby** (treasurer, public officer and AES representative councillor), **Peter Carwardine** (immediate past president, not that he had much choice), and Anon. (secretary).

An assessment of the risks involved in holding field trips showed that the Council needed some very rigorous operating procedures and insurances if it were to minimise the liability of the Society. It was thought unreasonable to take $6 from the subscription of each member to insure those few who attended field trips, or to charge $100 per year for participants. Reluctantly the Council decided that it was no longer in a position to run formal trips. Email connections allow members to make private arrangements to accompany their friends for a nice day out.

Each year the Society funds a bursary for the Science Talent Search conducted by the Science Teachers' Association of Victoria. The 2006 winners were Georgia Cheesman and Alice James of Ruyton Girls' School for their research project "Buzz Off – Which repellent is most effective?" Perhaps they will be able to publish their report in the *Victorian Entomologist* as a start to significant entomological careers.

Ian ENDERSBY

SOUTH AUSTRALIA

The University of Adelaide

Congratulations to Drs **Claire Stephens** and **Tim Moulds** who graduated recently: Claire for her work on 'The impact of environmental weed invasion on arthropod biodiversity and associated community structure and processes', and Tim on the 'Ecology of guano-associated invertebrates at the Naracoorte World Heritage Caves'.

The National Science Foundation, as part of its Planetary Biodiversity Inventories program, has awarded US$2.6 million to **Norm Johnson** (Ohio State University) and **Andy Austin**, who will lead a group of international researchers from nine countries. The five-year project's main aims are to describe and name the estimated 2,500 species of platygastroid wasps, to explore poorly known areas of the world rich in these parasitic wasps including forests of Brazil and southeast Asia, the Western regions of India and the arid lands of South Africa, and to map the evolutionary relationships using DNA sequences and morphology.

Nick Stevens, Claire Stephens, Muhammad Iqbal (DEH, Canberra), **John Jennings, John LaSalle** (ANIC) and **Andy Austin** have virtually completed *What wasp is that*? a Lucid key to the families of Australasian Hymenoptera which will be published by ABRS.

John Jennings represented CHAEC at several meetings and workshops associated with the NCRIS bid to produce an 'Atlas of

Living Australia'.

John Jennings chaired the 17th Annual General Meeting of the Council of Heads of Australian Entomological Collections (CHAEC) which was held at the Royal Society of SA rooms, Adelaide Sunday 24 September. **John Early** (Curator of Entomology, Auckland Museum) and **Olwyn Green** (Plant & Environment Laboratory, Investigation & Diagnostic Centre – Tamaki, Biosecurity NZ) attended the meeting as observers. Remember to check out the CHAEC website for details of collections, collecting permits and much more. http://flyaqis.museum.vic.gov.au/chaec/index.html

SARDI Entomology

Dennis Hopkins has retired from his position as leader of SARDI Entomology, and we wish him well in his retirement.

Richard Glatz has taken up a position of Senior Research Scientist with SARDI Entomology. Richard is a graduate of The University of Adelaide and was formerly a Postdoctoral Research Fellow with CSIRO Molecular and Health Technologies and was a member of the ARC Nanotechnology Network.

Most of the SARDI Entomology staff were involved in planning and running the joint Australian and New Zealand Entomological Societies' Conference, held on 24-27 September, 2006.

Attending the recent AES NZ Entomology Conference in Adelaide were Peter Taverner, Gabriella Caon, Vanessa Cockington, Nancy Cunningham, Cate Paull, Glenys Wood, Richard Glatz, Greg Baker, Kym Perry and Nick Stevens.

Dr Eric Jang, Leader of the Tropical Plant Pests Research Unit at the USDA's Pacific Basin Agricultural Research Centre in Hilo, Hawaii visited SARDI Waite Campus following the Adelaide Conference. He is an internationally known research scientist specialising in research on the physiology and chemical ecology of tephritid fruit flies. His expertise incudes development of post harvest quarantine treatments and systems for market export, fruit fly nutrition and mass-rearing, development of semiochemicals and systems approaches for area-wide control and research on fundamental physiological process which influences tephritid fruit fly olfaction and behaviour.

Catherine Smallridge (SARDI) attended the 2nd Research Co-ordination Meeting of the FAO/IAEA-sponsored Co-operative Research Program "Improving male performance in the sterile insect technique" in Salvador, Brazil from 3-12 September, 2006 and presented "Investigations into improving the competitiveness of sterile Queensland fruit fly, *Bactrocera tryoni.*"

Vanessa Cockington (SARDI) attended the 7th International Symposium on fruit flies of economic importance and the 6th meeting of the working group on fruit flies of the Western Hemisphere, in Salvador, Brazil from 10 – 15 September, 2006. She delivered two poster presentations, one on Quality control results for sterile Queensland fruit fly, and the other on the positive effect of protein on Queensland fruit fly performance.

SA Museum

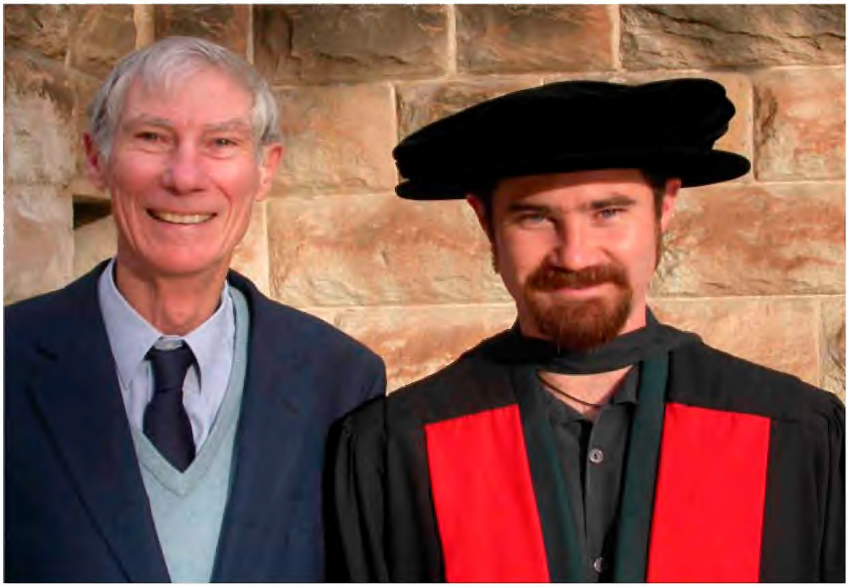
In 2004, the South Australian Museum and the Royal Society of South Australia became partners in Southern Scientific Press. This led to the amalgamation of their two professional journals. The *Transactions of the Royal Society of South Australia* now incorporates the *Records of the South Australian Museum.* An initiative has been to digitise the back contents of these two journals. These will be available later this year via the SA Museum's web site, will be fully searchable and you will be able to download pdfs for free. There are many significant entomological papers in these two Journals, so this should be a popular initiative.

Butterfly Watch, a web based collaboration with students from Flinders University, was launched on 17th September. The project seeks to raise awareness of the needs of butterflies and involves members of the public in reporting where butterflies are and what plants adults are feeding on. *Butterfly Watch* may be found at www.samuseum.sa.gov.au

John JENNINGS (with contributions from Glenys WOOD and Gary TAYLOR).

Below - Participants of the Fourth Brazilian Canopy Biology Course with instructors Servio Ribeiro and Jonathan Majer (fifth and eighth from left respectively).

Below – The Doctors Moulds (see pg 35)



The Australian Entomological Society Shop

http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/shop.htm

Monster Sale, Prices Slashed by up to 50%
First in best dressed! Only while stocks last.

Garments

Polo shirts were $25 *now $12.50*

Collared Sweatshirts were $40 *now $20*

Sizes (men's): S, M, L, XL, 2XL, 3XL, 4XL 5XL (the fit is generous). Small is approx a women's size 12; L approx 16-18.

3 designs

Honey pot ant (*Melophorus bagoti*)	One embroidered honeypot ant on front of garment
Ant trails	Two embroidered ant trails on front of garment
Mitchell's diurnal cockroach (*Polyzosteria mitchelli*)	4 cockroaches embroidered on the front and back of the garment

Glasses were $15 *now $7.50 each or get a set of 6 for $42*

Drinking glass suitable for water, juice, whiskey, with a bull ant (*Myrmecia*) engraved on the bottom.

Coasters were $5 *now $2.50 each or get a set of 6 for $12*

Made of anodised aluminium, backed with felt, and engraved with a bull ant (*Myrmecia*).

Ant pin were $45 *now $25*

We took a real bull ant that was coated with gold to the jeweller and asked him to make some for us in solid silver. Only 100 made.

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We will use prepaid parcel post satchels for small orders of unbreakable merchandise (500g or 3kg).

For one polo shirt within Australia, add $5.00.

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Order Forms - An order/tax invoice form can be downloaded from the society's website. Send your orders to Jane Wright by fax on (02) 6246 4094, email to jane.wright@csiro.au or mail to CSIRO Entomology, GPO Box 1700, Canberra, ACT 2601.

MEMBERSHIP NOMINATION FORM

To obtain a nomination form, please download from
http://www.agric.nsw.gov.au/Hort/ascu/myrmecia/aesmemform.pdf.

BRAINDRAIN

1. Which word for 'under' has its letters in alphabetical order?
2. What's special about the name of 'hijiki' seaweed?
3. Take alternate letters of a word for lounge fabric to spell what might sit better in a vase.
4. Which Sydney suburb has eight O's in its name?
5. What are Wazen, Wezen, and Zubenelschemali?
   a. Stars
   b. Buddhist sects
   c. Languages of Mongolia

Answers next issue of Myrmecia

Answers for last issue

1. smart, trams
2. 'am', 'is' and 'been'
3. grapes
4. intestines
5. c. 100 billion

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